Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) same (osteoporosis or fracture or fragility)	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:35
L2	228	((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) and EDTA	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:36
L3	10	((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) same EDTA	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:45
L4	228	((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) and EDTA	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:45
L5	75	l4 and (EDTA same sample)	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:46
L6	22	l4 and (EDTA same antibody)	US-PGPUB; USPAT; EPO; DERWENT	OR	ON	2005/01/05 10:47

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that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

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=> ((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) and
(osteoporosis or fracture or fragility)
L1            0 FILE AGRICOLA
L2            1 FILE BIOTECHNO
L3            0 FILE CONFSCI
L4            0 FILE HEALSAFE
L5            0 FILE IMSDRUGCONF
L6            2 FILE LIFESCI
L7            0 FILE MEDICONF
L8            2 FILE PASCAL

TOTAL FOR ALL FILES
L9            5 ((COC) OR (GAMMA NEAR2 CARBOXYLATED NEAR2 OSTEOCALCIN) OR GLA-OC
                ) AND (OSTEOPOROSIS OR FRACTURE OR FRAGILITY)

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ENTER L# LIST OR (END):l9
DUPLICATE IS NOT AVAILABLE IN 'IMSDRUGCONF, MEDICONF'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L9
L10           3 DUP REM L9 (2 DUPLICATES REMOVED)

=> d l10 ibib abs total

L10  ANSWER 1 OF 3  LIFESCI    COPYRIGHT 2005 CSA on STN DUPLICATE 1
ACCESSION NUMBER:   2001:41145  LIFESCI
TITLE:              Strong Prediction of Fractures Among Older Adults
                    by the Ratio of Carboxylated to Total Serum Osteocalcin
```

AUTHOR: Luukinen, H.; Kaekoenen, S.-M.; Pettersson, K.; Koski, K.; Laippala, P.; Levgren, T.; Kivelae, S.-L.; Vaeaenaenen, H.K.
CORPORATE SOURCE: Department of Public Health Science and General Practice, University of Oulu, Oulu University Hospital, Oulu, Finland
SOURCE: Journal of Bone and Mineral Research [J. Bone Miner. Res.], (20001200) vol. 15, no. 12, pp. 2473-2478. ISSN: 0884-0431.
DOCUMENT TYPE: Journal
FILE SEGMENT: T
LANGUAGE: English
SUMMARY LANGUAGE: English

AB We examined serum total osteocalcin (TOC), carboxylated osteocalcin (**COC**), and their ratio (**COC**/TOC) by one-step two-site immunofluorescent assays in 87% (n = 792) of all home-dwelling persons of 70 years or older living in a defined area in northern Finland. Other baseline subject-related risk factors of **fractures** were assessed by postal questionnaires, interviews, clinical examinations, and tests. During a 5-year follow-up period, all falls and **fractures** (n = 106) were recorded by regular phone calls and by examining all the medical records yearly. Serum TOC and **COC** concentrations increased with advancing age and were higher in women than in men, but corresponding differences were not found in the case of **COC**/TOC. The adjusted relative risk of **fracture** was elevated in association with low (less than or equal to -1 SD from the mean) **COC**; hazard ratio (HR, 95% CI) 2.00 (1.20-3.36) and low **COC**/TOC; HR 5.32 (3.26-8.68), the relative risk being highest in the population older than 80 years; and HR 7.02 (2.42-20.39). The predictive value of low **COC**/TOC lasted 3 years. The multivariable-adjusted relative risk of hip **fracture** (n = 26) in regard to low **COC**/TOC ratio was 3.49 (1.12-10.86), as compared with the persons who did not suffer hip **fractures**. Our results suggest that serum **COC** concentrations and, more strongly, **COC**/TOC, predict the occurrence of **fractures** in older community-dwelling adults. The risk of **fracture** associated with low **COC**/TOC equals the hip **fracture** risk previously verified for concomitant high serum undercarboxylated OC concentrations and low bone mineral density.

L10 ANSWER 2 OF 3 LIFESCI COPYRIGHT 2005 CSA on STN
ACCESSION NUMBER: 93:19276 LIFESCI
TITLE: Effects of cocaine and norepinephrine on primary cultures of neonatal rat myocardial cells.
AUTHOR: Welder, A.A.; Eselin, J.A.; Melchert, R.B.; Davis, S.K.; O'Dell, J.F.
CORPORATE SOURCE: Coll. Pharm., Univ. Oklahoma Health Sci. Cent., Div. Med. Chem. and Pharmacodyn., 1110 N. Stonewall, Oklahoma City, OK 73190, USA
SOURCE: J. TOXICOL. ENVIRON. HEALTH., (1992) vol. 36, no. 2, pp. 75-90.
DOCUMENT TYPE: Journal
FILE SEGMENT: X
LANGUAGE: English
SUMMARY LANGUAGE: English

AB The purpose of this investigation was to evaluate the synergistic or additive toxic effects of norepinephrine (NE) and **Coc** in primary myocardial cell cultures obtained from 3- to 5-d-old Sprague-Dawley rats. Alterations in lactate dehydrogenase release (LDH), lysosomal neutral red retention (NR), beating activity, and morphology were evaluated after treatment of the cells for 1-24 h with 1 x 10 super(-3) M **Coc** alone, 1 x 10 super(-5) M **Coc** alone, 1 x 10 super(-5) M NE alone, 1 x 10 super(-3) M **Coc** with 1 x 10 super(-5) M NE, or 1 x 10 super(-5) M **Coc** with 1 x 10 super(-5) M NE. LDH release was elevated significantly after 24 h only with those cells exposed to 1 x 10 super(-3) M **Coc** alone and 1 x 10 super(-3) M **Coc** + 1 x

10 super(-5) M NE. Using NR retention as a score for lysosomal treatment of the cells with 1 x 10 super(-5) M **Coc** and 1 x 10 super(-3) M **Coc** alone did not decrease dye retention significantly. However, 1 x 10 super(-5) M NE combined with 1 x 10 super(-3) M **Coc** significantly reduced lysosomal dye retention was early as 1 h after treatment. After 24 h, 1 x 10 super(-5) M NE alone and 1 x 10 super(-5) M NE combined with 1 x 10 super(-5) M **Coc** significantly increased lysosomal **fragility**. Beating activity was altered in all treatment groups.

L10 ANSWER 3 OF 3 BIOTECHNO COPYRIGHT 2005 Elsevier Science B.V. on STN
DUPLICATE

ACCESSION NUMBER: 1991:21190175 BIOTECHNO
TITLE: A one step sandwich enzyme immunoassay for γ-carboxylated osteocalcin using monoclonal antibodies
AUTHOR: Koyama N.; Ohara K.; Yokota H.; Kurome T.; Katayama M.; Hino F.; Kato I.; Akai T.
CORPORATE SOURCE: Biotechnology Research laboratory, Takara Shuzo Co. Ltd., Otsu, Shiga 520-21, Japan.
SOURCE: Journal of Immunological Methods, (1991), 139/1 (17-23)
CODEN: JIMMBG ISSN: 0022-1759
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English

AN 1991:21190175 BIOTECHNO

AB A highly sensitive, simple and reliable one-step sandwich enzyme immunoassay (EIA) for the γ-carboxylated form of osteocalcin (**Gla-OC**) has been developed using a monoclonal antibody. The minimum amount of **Gla-OC** detected by this EIA was approximately 0.2 ng/ml when a 10 μl aliquot of the sample was used. The serum **Gla-OC** level in 30 healthy subjects was 3.6 ± 2.19 ng/ml (mean ± SD). A significant increase was seen in patients with chronic renal failure (20.3 ± 4.60 ng/ml), atherosclerosis (8.3 ± 4.94 ng/ml) and **osteoporosis** (10.1 ± 4.60 ng/ml). The correlation between the values obtained by the sandwich EIA and competitive RIA methods was given by the linear regression equation, y = 2.896 + 0.759x, for which the correlation coefficient (r) was 0.815 (n = 58). This newly developed **Gla-OC** specific EIA may be useful for the diagnosis of metabolic bone disease and ectopic calcification.

=> file .chemistry

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	13.42	13.63

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=> ((COC) or (gamma near2 carboxylated near2 osteocalcin) or Gla-OC) and
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L11 12 FILE CAPLUS
L12 1 FILE BIOTECHNO
L13 3 FILE COMPENDEX
L14 0 FILE ANABSTR
L15 0 FILE CERAB
L16 0 FILE METADEX
L17 187 FILE USPATFULL

TOTAL FOR ALL FILES
L18 203 ((COC) OR (GAMMA NEAR2 CARBOXYLATED NEAR2 OSTEOCALCIN) OR GLA-OC
) AND (OSTEOPOROSIS OR FRACTURE OR FRAGILITY)

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L14 HAS NO ANSWERS
L15 HAS NO ANSWERS
L16 HAS NO ANSWERS
PROCESSING COMPLETED FOR L11
PROCESSING COMPLETED FOR L12
PROCESSING COMPLETED FOR L13
PROCESSING COMPLETED FOR L14
PROCESSING COMPLETED FOR L15
PROCESSING COMPLETED FOR L16
L19 15 DUP REM L11-L16 (1 DUPLICATE REMOVED)

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PROCESSING COMPLETED FOR L16
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L20 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:351805 CAPLUS
DOCUMENT NUMBER: 140:361198
TITLE: Nanoparticulate cemented carbides showing high hardness, strength, and toughness for cutting tools
INVENTOR(S): Kobayashi, Masaki
PATENT ASSIGNEE(S): Toshiba Tungaloy Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004131769	A2	20040430	JP 2002-295790	20021009

PRIORITY APPLN. INFO.: JP 2002-295790 20021009

AB The cemented carbides comprise WC-based hard phase of average grain size 0.05-0.5 μm and Ni-based binder phase containing W 5-30, Cr 5-15, Si 2-10, and B 1-5%. The hard phase may consist of (a) WC-based major phase, (b) dispersed phase of CrC, **CoC**, WC, NiC, and/or their solid solns. and (c) cubic phase of Group IVB-VIB carbides and/or nitrides, in volume ratio of a/b/c (50-95):(0-5):(0-5).

L20 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:637921 CAPLUS
DOCUMENT NUMBER: 139:261736
TITLE: Non-linear long-term tensile creep of poly(propylene)/cycloolefin copolymer blends with fibrous structure
AUTHOR(S): Kolarik, Jan; Pegoretti, Alessandro; Fambri, Luca; Penati, Amabile
CORPORATE SOURCE: Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Prague, 162 06/6, Czech Rep.
SOURCE: Macromolecular Materials and Engineering (2003), 288(8), 629-641
CODEN: MMENFA; ISSN: 1438-7492
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The tensile deformation of materials with Poisson's ratio smaller than 0.5 generates an addnl. free volume, which means that tensile creep under constant stress and temperature is a non-iso-free volume process. Fractional free volume rising proportionally to the creep strain accounts for a continuous shortening of retardation times. To account for this effect, internal time was introduced which is related to a hypothetical pseudo iso-free-volume state. The shift factor along the time scale in the time-strain superposition is not constant for an isothermal creep curve, but rises monotonically from point to point with the elapsed creep time. The reconstructed compliance dependencies obtained for various stresses approx. obey the time-strain superposition thus forming a generalized creep curve. A routinely used empirical equation was found suitable to describe the effects of time and stress on compliance of parent polymers and their blends. The previously proposed predictive format for the time-dependent compliance of polymer blends was found applicable also to poly(propylene) (PP)/cycloolefin copolymer (**COC**) blends with fibrous morphol. As **COC** shows a tendency to form fibers in a PP matrix, the mixing rule customarily used for fiber composites was found more appropriate for injection molded specimens than the equivalent box model for isotropic blends. The predicted compliance curve for a pseudo iso-free-volume state can be transformed into a real curve for a selected stress σ (in the interval up to the yield stress).

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 3 OF 15 COMPENDEX COPYRIGHT 2005 EEI on STN
ACCESSION NUMBER: 2004(36):4642 COMPENDEX
TITLE: Life cycle modeling of wellbore cement systems used for enhanced geothermal system development.
AUTHOR: McCulloch, Jess; Gastineau, John; Bour, Daniel L.; Ravi, Kris
MEETING TITLE: International Collaboration for Geothermal Energy in

the Americas - Geothermal Resources Counsil: 2003 Annual Meeting.
MEETING LOCATION: Morelia, Michoacan, Mexico
MEETING DATE: 12 Oct 2003-15 Oct 2003
SOURCE: Transactions - Geothermal Resources Council v 27 2003.p 147-154
CODEN: TGRCD7 ISSN: 0193-5933
PUBLICATION YEAR: 2003
MEETING NUMBER: 63432
DOCUMENT TYPE: Conference Article
TREATMENT CODE: Theoretical
LANGUAGE: English
AN 2004(36):4642 COMPENDEX
AB Coso Operating Company, LLC (**COC**), and the Energy and Geosciences Institute (EGI) at the University of Utah have been granted funding from the Department of Energy to develop an enhanced geothermal system (EGS) at Coso. Coso is an operating geothermal plant that provides an excellent opportunity to experiment with methods for enhancing the geothermal reservoir through hydraulic, thermal, and chemical stimulation. Any additional energy produced at this plant can be used immediately. However, stresses to casing and cement during reservoir enhancement could result in the movement of steam around the outside of the casing string if the cement fails, causing lost steam production and possible safety hazards. **COC** and Halliburton, a partner in the study team for the EGS project, are using Halliburton's advanced WellLife[trademark] analysis software to predict stresses on casing and cement in a wellbore subjected to the temperature and pressure changes planned for the project. A number of cementing options were modeled, including foamed cement and cements resistant to attack by wet CO2. Near-wellbore stresses and rock physical properties collected during early phases of the Coso EGS project provided input to the model. Data collected by Brookhaven National Laboratory and Halliburton on the physical properties of cements were also used in the model.1 The modeling included pressure changes during **fracture** breakdown testing and thermal cycling in the production well, as well as hydraulic stimulation and thermal stimulation in the injection well. Results indicate that tensional stresses are most likely to cause failure. Foamed cements, which are both resilient and nonshrinking, fared the best under both temperature-induced and pressure-induced stresses. Conventional nonshrinking cements also showed a reduced risk of failure. 6 Refs.

L20 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:849628 CAPLUS
DOCUMENT NUMBER: 137:353008
TITLE: Preparation of β-carbolinecarboxylates as inhibitors of phosphodiesterase 5 for treatment of cardiovascular disorders.
INVENTOR(S): Sawyer, Jason Scott; Orme, Mark W.; Copp, James D.
PATENT ASSIGNEE(S): Lilly Icos LLC, USA
SOURCE: PCT Int. Appl., 179 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

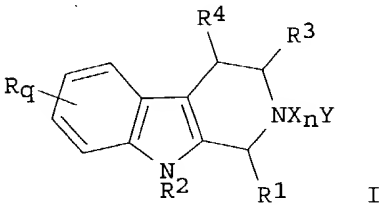
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002088123	A1	20021107	WO 2002-US10367	20020402

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2441792	AA	20021107	CA 2002-2441792	20020402
EP 1383765	A1	20040128	EP 2002-766739	20020402
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004532852	T2	20041028	JP 2002-585422	20020402
US 2004147542	A1	20040729	US 2004-471476	20040209
PRIORITY APPLN. INFO.:			US 2001-286730P P	20010425
			WO 2002-US10367 W	20020402

OTHER SOURCE(S): MARPAT 137:353008
GI



I

AB Title compds. [I; R = halo, alkyl, aryl, heteroaryl, cycloalkyl, heterocycloalkyl, CORa, O2CRa, CO2Ra, NO2, CF3, OCF3, cyano, SO2Ra, SORa, SRa, OSO2CF3, CONRaRb, etc.; R1 = (substituted) aryl, heteroaryl, cycloalkyl, heterocycloalkyl, bicyclyl, etc.; Ra = H, alkyl, cycloalkyl, aryl, aralkyl, alkylenearyl, heteroaryl, heteroarylalkyl, etc.; Rb = H, alkyl, cycloalkyl, aryl, aralkyl, heteroaryl, etc.; Rc = H, alkyl, aryl, heteroaryl, aralkyl, heteroarylalkyl, etc.; RaRc = atoms to form a 5-6 membered ring; R2 = H, alkyl, cycloalkyl, heterocycloalkyl, alkenyl, aralkyl, CORa, CSNRaRb, etc.; R3 = CORb, CO2Rb, CONRaRb, CONRaSO2Rb, etc.; R4 = H, alkyl, aryl, heteroaryl, aralkyl, cycloalkyl, heterocycloalkyl, etc.; X = CO, (CH2)tCO, **COC**.tplbond.C, CS, SO, SO2, CONRa, etc.; Y = Ra, (CH2)nCORc, NRb(CH2)nRc, O(CH2)nRc, etc.; n = 0, 1; q = 0-4; t = 1-4], were prepared Thus, (1R,3R)-1-benzo-1,3-dioxol-5-yl-2-(3-phenylacryloyl)-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid dimethylamide (preparation outlined) inhibited PDE5 with IC50 = 0.044 μM.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:703891 CAPLUS
DOCUMENT NUMBER: 138:231564
TITLE: Time-dependent effects of vitamin K2 (Menatetrenone) on bone metabolism in postmenopausal women
AUTHOR(S): Ozuru, Rieko; Sugimoto, Toshitsugu; Yamaguchi, Tohru; Chihara, Kazuo
CORPORATE SOURCE: Third Division, Department of Medicine, Kobe University School of Medicine, Kobe, 650-0017, Japan
SOURCE: Endocrine Journal (Kyoto, Japan) (2002), 49(3), 363-370
CODEN: ENJOEO; ISSN: 0918-8959
PUBLISHER: Japan Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Vitamin K is known to mediate carboxylation of glutamyl residues of osteocalcin. The authors evaluated the effects of vitamin K2 (Menatetrenone) treatment (45 mg/day) for 48 wk on the markers of bone

formation and resorption, bone mineral d. (BMD), and the incidence of vertebral **fractures** in 34 Japanese postmenopausal women (aged 48-82 yr). Serum levels of alkaline phosphatase (ALP) increased gradually and became significant at 48 wk after Menatetrenone treatment, while urinary excretion of deoxypyridinoline (DPD) decreased transiently but significantly at 4 wk. Serum levels of both intact osteocalcin (OC) and carboxylated OC (**Gla-OC**) increased rapidly and significantly within 4 wk and sustained their high values up to 48 wk after the treatment, while those of undercarboxylated OC (Glu-OC) decreased reciprocally. These results can be interpreted to suggest that Glu-OC was converted to **Gla-OC** in vivo. On the other hand, lumbar BMD values showed no significant change and only one subject with a previous vertebral **fracture** had one newly occurring vertebral **fracture**. These results indicate that Menatetrenone treatment of postmenopausal women constantly elevates bone formation markers as well as converts Glu-OC to **Gla-OC**. Thus, vitamin K2 treatment may promote bone formation, at least as measured biochem. in these subjects.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:379301 CAPLUS
DOCUMENT NUMBER: 137:170213
TITLE: On predicting environmental stress cracking in polymers
AUTHOR(S): Hansen, Charles M.
CORPORATE SOURCE: FORCE Technology, Broendby, DK-2605, Den.
SOURCE: Polymer Degradation and Stability (2002), 77(1), 43-53
CODEN: PDSTDW; ISSN: 0141-3910
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Environmental stress cracking (ESC) is shown to correlate well using a plot of the RED number (polymer-solvent interaction) found from Hansen solubility parameters (HSP) vs. a mol. size parameter, the molar volume, V. These plots are presented for a cyclo-olefinic copolymer, a polycarbonate, and a polyvinylchloride. There are 3 distinct regions on this type of plot. There is a region at low RED including those challenge liqs. which dissolve the polymer or are very aggressive, and ESC is not found as such. There is a region at high RED where the absorption is not great enough to matter, or else the absorption rate is slow enough to allow relaxation of the polymer in preference to ESC. ESC can occur in an intermediate region where there is some absorption of challenge liquid The ESC region on these plots increases in size with increased stress and/or increased critical strain. The mol. shape of the challenge mols. is clearly important in addition to V. ESC may occur for a challenge chemical with a linear mol. structure, but not for one with the same RED and V, but with a cyclic structure. The absorption rate of the cyclic mol. is too slow. All of the test liqs. causing ESC failure in an immersed, injection-molded, cyclo-olefinic copolymer (**COC**) cylinder had measurable surface resistances retarding absorption. Emphasis is therefore placed on surface resistance to absorption, since this may play an important part in the ESC phenomena itself, and can possibly lead to delaying a catastrophic ESC failure beyond normal testing times. This surface resistance is thought to originate from the rate at which adsorbing mols. can locate a hole in the polymer surface large enough to accommodate them. Larger and more sterically complicated mols. have much more difficulty finding such a suitable hole, so the surface transport coefficient is inversely proportional to the mol. cross-section. Once an adsorbed mol. locates in a suitable hole, the rate of motion into the bulk is dependent on the diffusion coefficient Therefore the surface transport coefficient is directly proportional to

the diffusion coefficient
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:707377 CAPLUS
DOCUMENT NUMBER: 133:234752
TITLE: Method for prediction of bone **fractures** by osteocalcin measurements
INVENTOR(S): Kakonen, Sanna-Maria; Luukinen, Heikki; Pettersson, Kim; Lovgren, Timo; Vaananen, H. Kalervo
PATENT ASSIGNEE(S): Finland
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000058732	A1	20001005	WO 2000-FI227	20000320
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1166122	A1	20020102	EP 2000-914195	20000320
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: FI 1999-693 A 19990329
WO 2000-FI227 W 20000320

AB This invention concerns a method for the assessment of bone **fragility** and **fracture** risk, or **osteoporosis**, in a person. In said method, the concentration of gamma-carboxylated osteocalcin (**COC**) and optionally also the concentration of intact or total osteocalcin (IOC or TOC, resp.) in a body fluid sample of said person is measured. The concentration of gamma-carboxylated osteocalcin (**COC**) so obtained is compared to the mean concentration of gamma-carboxylated osteocalcin (mean **COC**) in similar body fluid samples of the population of the same age and sex. Alternatively, the determined ratio **COC**/IOC or **COC**/TOC for said person, is compared to the mean ratio **COC** /IOC or **COC**/TOC, (mean ratio **COC**/IOC or mean ratio **COC**/TOC) determined from measurements in similar body fluid samples of the population of the same age and sex. A measured **COC** that is lower than the mean **COC** is used as indication of **osteoporosis**, bone **fragility** or increased risk of bone **fracture** in said person. Preferably, a determined ratio **COC** /TOC that is lower than the mean ratio **COC**/TOC is used as indication of **osteoporosis**, bone **fragility** or increased risk of bone **fracture** in said person. The invention concerns further kits for use in the assessment according to this invention.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:880223 CAPLUS
DOCUMENT NUMBER: 134:126449
TITLE: Strong prediction of **fractures** among older adults by the ratio of carboxylated to total serum osteocalcin
AUTHOR(S): Luukinen, H.; Kakonen, S. -M.; Pettersson, K.; Koski, K.; Laippala, P.; Lovgren, T.; Kivela, S. -L.;

Vaananen, H. K.
CORPORATE SOURCE: Department of Public Health Science and General Practice, University of Oulu, Oulu, Finland
SOURCE: Journal of Bone and Mineral Research (2000), 15(12), 2473-2478
CODEN: JBMREJ; ISSN: 0884-0431
PUBLISHER: American Society for Bone and Mineral Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors examined serum total osteocalcin (TOC), carboxylated osteocalcin (**COC**), and their ratio (**COC**/TOC) by one-step two-site immunofluorescent assays in 87% (n = 792) of all home-dwelling persons of 70 yr or older living in a defined area in northern Finland. Other baseline subject-related risk factors of **fractures** were assessed by postal questionnaires, interviews, clin. examns., and tests. During a 5-yr follow-up period, all falls and **fractures** (n = 106) were recorded by regular phone calls and by examining all the medical records yearly. Serum TOC and **COC** concns. increased with advancing age and were higher in women than in men, but corresponding differences were not found in the case of **COC**/TOC. The adjusted relative risk of **fracture** was elevated in association with low (≤-1 SD from the mean) **COC**; hazard ratio (HR, 95% CI) 2.00 (1.20-3.36) and low **COC**/TOC; HR 5.32 (3.26-8.68), the relative risk being highest in the population older than 80 yr; and HR 7.02 (2.42-20.39). The predictive value of low **COC**/TOC lasted 3 yr. The multivariable-adjusted relative risk of hip **fracture** (n = 26) in regard to low **COC**/TOC ratio was 3.49 (1.12-10.86), as compared with the persons who did not suffer hip **fractures**. These results suggest that serum **COC** concns. and, more strongly, **COC**/TOC, predict the occurrence of **fractures** in older community-dwelling adults. The risk of **fracture** associated with low **COC**/TOC equals the hip **fracture** risk previously verified for concomitant high serum undercarboxylated OC concns. and low bone mineral d.
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:349214 CAPLUS
DOCUMENT NUMBER: 127:45003
TITLE: Oral contraceptives and systemic lupus erythematosus
AUTHOR(S): Petri, Michelle; Robinson, Courtland
CORPORATE SOURCE: Johns Hopkins University School of Medicine, Baltimore, MD, 21205, USA
SOURCE: Arthritis & Rheumatism (1997), 40(5), 797-803
CODEN: ARHEAW; ISSN: 0004-3591
PUBLISHER: Lippincott-Raven
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 88 refs. The authors present evidence of a deleterious effect of combined oral contraceptives (**COC**) on the activity of systemic lupus erythematosus (SLE) or on thromboembolism (TE) in SLE. The potential beneficial effects of oral contraceptives, including better contraception, control of cyclic SLE disease activity, prevention of **osteoporosis**, and preservation of fertility during cyclophosphamide treatment is also discussed.
REFERENCE COUNT: 88 THERE ARE 88 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1992:483286 CAPLUS
DOCUMENT NUMBER: 117:83286
TITLE: Effects of cocaine and norepinephrine on primary cultures of neonatal rat myocardial cells
AUTHOR(S): Welder, Allison A.; Eselin, Julie A.; Melchert,

Russell B.; Davis, Sylvia K.; O'Dell, Jennifer F.
CORPORATE SOURCE: Coll. Pharm., Univ. Oklahoma, Oklahoma, OK, USA
SOURCE: Journal of Toxicology and Environmental Health (1992), 36(2), 75-90
CODEN: JTEHD6; ISSN: 0098-4108
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Sudden cardiac death associated with cocaine (**Coc**) abuse in healthy, phys. active individuals became a grave concern in the late 1980s. It is well documented that phys. activity increases circulating plasma catecholamine levels. Catecholamines as well as **Coc** are independently capable of inducing toxic cardiac effects. The purpose of this investigation was to evaluate the synergistic or additive toxic effects of norepinephrine (NE) and **Coc** in primary myocardial cell cultures obtained from 3- to 5-d-old Sprague-Dawley rats. Alterations in lactate dehydrogenase release (LDH), lysosomal neutral red retention (NR), beating activity, and morphol. were evaluated after treatment of the cells for 1-24 h with 1 + 10-3 M **Coc** alone, 1 + 10-5 M **Coc** alone, 1 + 10-5 M NE alone, 1 + 10-3 M **Coc** with 1 + 10-5 M NE, or 1 + 10-5 M **Coc** with 1 + 10-5 M NE. LDH release was elevated significantly after 24 h only with those cells exposed to 1 + 10-3 M **Coc** alone and 1 + 10-3 M **Coc** + 1 + 10-5 M NE. Using NR retention as a score for lysosomal treatment of the cells with 1 + 10-5 M **Coc** and 1 + 10-3 M **Coc** alone did not decrease dye retention significantly. However, 1 + 10-5 M NE combined with 1 + 10-3 M **Coc** significantly reduced lysosomal dye retention as early as 1 h after treatment. After 24 h, 1 + 10-5 M NE alone and 1 + 10-5 M NE combined with 1 + 10-5 M **Coc** significantly increased lysosomal **fragility**. Beating activity was altered in all treatment groups. Contractile activity was slow and irregular or completely absent with 1 + 10-5 and 1 + 10-3 M **Coc**, resp. When NE (1 + 10-5 M) was combined with both concns. of **Coc**, there was distinct focalization of sharp, rapid contractions within the cells, which were asynchronous and/or arrhythmic in nature. Those cells exposed to 1 + 10-5 M NE with 1 + 10-5 M **Coc** for 24 h appeared hypercontracted with marked pseudopodia and cytoplasmic granule formation distinctly different from that exhibited by the cells exposed to 1 + 10-5 M **Coc** alone. These data demonstrate that NE potentiates the adverse effects of **Coc** on contractile activity and morphol. of spontaneously contracting neonatal myocardial cells maintained in culture.

L20 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 1991:627613 CAPLUS
DOCUMENT NUMBER: 115:227613
TITLE: A one step sandwich enzyme immunoassay for γ-carboxylated osteocalcin using monoclonal antibodies
AUTHOR(S): Koyama, Nobuto; Ohara, Kanako; Yokota, Hiroko; Kurome, Tohru; Katayama, Masahiko; Hino, Fumitsugu; Kato, Ikunoshin; Akai, Toshihiro
CORPORATE SOURCE: Biotechnol. Res. Lab., Takara Shuzo Co., Ltd., Otsu, 520-21, Japan
SOURCE: Journal of Immunological Methods (1991), 139(1), 17-23
CODEN: JIMMBG; ISSN: 0022-1759
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A highly sensitive, simple and reliable one-step sandwich enzyme immunoassay (EIA) for the γ-carboxylated form of osteocalcin (Gal-OC) has been developed using a monoclonal antibody. The min. amount of **Gla-OC** detected by this EIA was approx. 0.2 ng/mL when a 10 μL aliquot of the sample was used. The serum **Gla-**

OC level in 30 healthy subjects was 3.6 ± 2.19 ng/mL (mean ± SD). A significant increase was seen in patients with chronic renal failure (20.3 ± 4.60 ng/mL), atherosclerosis (8.3 ± 4.94 ng/mL) and **osteoporosis** (10.1 ± 4.60 ng/mL). The correlation between the values obtained by the sandwich EIA and competitive RIA methods was given by the linear regression equation, y = 2.869 + 0.759x, for which the correlation coefficient (r) was 0.815 (n = 58). This newly developed **Gla-OC** specific EIA may be useful for the diagnosis of metabolic bone disease and ectopic calcification.

L20 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1990:211063 CAPLUS
DOCUMENT NUMBER: 112:211063
TITLE: Determination of serum Gla-form osteocalcin by enzyme immunoassay with monoclonal antibodies
AUTHOR(S): Yokota, Hiroko; Koyama, Nobuto; Katayama, Masahiko; Hino, Fumitsugo; Kato, Ikunoshin; Akai, Toshihiro
CORPORATE SOURCE: Biotech. Res. Lab., Takara Shuzo Co. Ltd., Otsu, 520-21, Japan
SOURCE: Igaku no Ayumi (1990), 152(8), 525-6
CODEN: IGAYAY; ISSN: 0039-2359
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Four monoclonal antibodies, OCG4, OCG3, OCG2, and OC4.30 to bovine osteocalcin (OC) were generated. Sandwich enzyme immunoassay using 2 antibodies, OCG4 and OC4.30 was used for the determination of serum Gla-form osteocalcin (**Gla-OC**) in patients with **osteoporosis**, chronic renal failure, and atherosclerosis. The serum **Gla-OC** concentration in these patients was significantly higher compared with normal subjects. The **Gla-OC**-specific assay method may be useful for the diagnosis of metabolic bone disease and ectopic calcification.

L20 ANSWER 13 OF 15 COMPENDEX COPYRIGHT 2005 EEI on STN
ACCESSION NUMBER: 1990(4):37050 COMPENDEX
DOCUMENT NUMBER: 900447855
TITLE: Methodology of testing irradiated specimens for resistance to brittle **fracture**.
AUTHOR: Vasnin, A.M. (Ukraine Academy of Sciences, Kiev, USSR); Garachuk, O.K.; Karasev, V.S.; Mamchich, S.D.; Rivkin, E.Yu.; Rodin, M.E.
SOURCE: Ind Lab (USSR) v 54 n 4 Nov 1988 p 517-520
CODEN: INDLAP ISSN: 0019-8447
PUBLICATION YEAR: 1988
DOCUMENT TYPE: Journal
TREATMENT CODE: Experimental
LANGUAGE: English
AN 1990(4):37050 COMPENDEX DN 900447855
AB Investigation of the influence of irradiation on the critical opening of the crack (**COC**) is performed on flat rectangular specimens with an edge crack for three-point bending tests which are fabricated from rolled steel 12KhGNMF.The radiation stability of this steel was estimated by results of tensile and shock bending tests.The influence of a different specimen irradiation temperature on the value of the critical crack opening was estimated during the tests.Specimens that were irradiated at the maximal (280 degree C) and minimal (240 degree C) temperatures were tested at identical temperatures.The data obtained showed that the difference in irradiation temperature in the 240-280 degree C range does not influence the resistance to brittle **fracture** for the steel 12KhGNMF.8 Refs.

L20 ANSWER 14 OF 15 COMPENDEX COPYRIGHT 2005 EEI on STN
ACCESSION NUMBER: 1982(1):5967 COMPENDEX
DOCUMENT NUMBER: 82013200

TITLE: INVESTIGATIONS IN THE FIELD OF THE MECHANICS OF THE **FRACTURE** OF VISCOELASTIC BODIES.
AUTHOR: Kaminskii, A.A.
SOURCE: Sov Appl Mech v 16 n 9 Sep 1980 p 741-759
CODEN: SOAMBT ISSN: 0038-5298
PUBLICATION YEAR: 1980
LANGUAGE: English
AN 1982(1):5967 COMPENDEX DN 82013200
AB An attempt is made to review the research work on the mechanics of the **fracture** of viscoelastic bodies, from the standpoint of the latest advances in this field of science. Particular sections deal with general questions, two-phase models, the main period, growth of a crack in anisotropic viscoelastic materials, experimental investigations, comparisons with theoretical principles. It is concluded that, at the present time, a reasonably complete study has been made only of problems of the subcritical growth of the macroscopic cracks of a normal **fracture** in isotropic homogeneous viscoelastic bodies, under the action of external loads, either constant or rising slowly with time. These problems have been investigated for different models of the **fracture** of viscoelastic bodies and different **fracture** criteria (**COC**, global energy criterion, local energy criterion, and others). Future lines of research are pointed out. 105 refs.

L20 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1961:145390 CAPLUS
DOCUMENT NUMBER: 55:145390
ORIGINAL REFERENCE NO.: 55:27604f-i,27605a-c
TITLE: Structural requirements for lathyrogenic agents
AUTHOR(S): Levene, C. I.
CORPORATE SOURCE: Univ. Oxford, UK
SOURCE: Journal of Experimental Medicine (1961), 114, 295-310
CODEN: JEMEAV; ISSN: 0022-1007
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 55, 14698e. A series of compds, was assayed for lathyrogenic activity in the chick embryo by measuring the relative viscosity of tissue exts. and a **fragility** index (time required for severing the head from the body under a constant stretching load). Lathyrogenic agents fell into 4 groups: nitriles, ureides, hydrazides, and hydrazines, in that decreasing order of effectiveness. The activity of the compds., expressed as relative viscosity of M NaCl exts. of 16-day-old embryos injected with 0.054 mmol 2 days earlier, was: aminoacetonitrile 45.2, methyleneaminoacetonitrile 44.9, β-aminopropionitrile 35.5, thiosemicarbazide 34.9, semicarbazide 22.1, acetone semicarbazone 25.1, isoniazid 15.5, nicotinic acid hydrazide 17.6, benzhydrazide 17.3, cyanoacetic acid hydrazide 14.8, and hydrazine hydrate 14.7. Substitution in aminoacetonitrile or β-aminopropionitrile of either the nitrile group or the terminal amine group resulted in loss of activity (glycine Me ester 2.0, glycine 1.7, methylamine 2.0, aminoacetaldehyde acetal 2.0, glycine amide 2.1, β-alanine 1.7, ethylenediamine 1.7, 2-mercaptoethylamine 1.7, cyanoacetic acid 1.9, α-cyanoacetonitrile 2.3, benzyl cyanide 2.5, acetonitrile 2.1, propionitrile 1.9, β-hydroxypropionitrile 2.1, β,β'-iminodipropionitrile 2.5, succinonitrile 2.0, β-dimethylaminopropionitrile 1.9, butyronitrile 2.3). Modification of the NH2NH ending of semicarbazide destroyed all activity (1-phenylsemicarbazide 1.8, oxamide 2.2, acetamide 1.9, nicotinamide 1.8, 6-aminonicotinamide 2.2, acrylamide 1.9, urea 2.2, asparagine 1.8, glutamine 1.5). Modification of the NH2 ending of semicarbazide produced some loss of activity, indicating that activity resides in the hydrazide grouping NH2N+ **COC** (4,4-diphenylsemicarbazide 2.3, γ-L-glutamylhydrazide 10.9, glycine hydrazide 11.1, p-nitrobenzhydrazide 14.1). Substitution of hydrazine diminished activity (unsym-dimethylhydrazine 5.3, sym-dimethylhydrazine 4.7, hydrazobenzene 3.1, 2,4-dinitrophenylhydrazine 2.1). Pyridoxal

tended to inhibit the lathyrogenic activity of ureides and especially that of the hydrazides but not that of nitriles or of thiosemicarbazide. Skeletal deformities of embryos were induced by nitriles and by high doses of ureides and hydrazides, but pyridoxal did not prevent deformities induced by nitriles. Evidence was found that pyridoxal antagonizes some lathyrogens by forming Schiff bases with them; pyridoxine and pyridoxamine were not antagonistic. Evidence is also presented that lathyrogens do not act as inhibitors of monoamine oxidases or as chelate-forming agents, nor, in the case of isoniazid, as an antinicotinamide agent.